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| Unit Plan Title: Gases and Atmospheric Chemistry | Group Members Names: Jason Fisher, Danny Hickie, Efi Pavlonov, David Sheps | |
| Sections | Descriptions (brief) | Member Name |
| Big Ideas with guiding questions | Key ministry expectations presented along with the questions that students should be able to answer by the end of the unit to demonstrate their achievement of the curricular goals | Jason |
| Unit Plan | 4 week unit plan, with key topics, assessment strategies, and some STSE links | Danny |
| Minds On Activity | Can Crusher demo and videos to demonstrate the power of gases and the importance of an understanding of them | Danny |
| Misconceptions (4-5) for the unit | Commonly held misconceptions and misunderstandings of gases, and strategies (demos, simulations, discussions) to refute them | Jason |
| Activity 1 | Using the oxidation of Steel Wool to determine the percent composition of atmospheric oxygen, through Upward displacement of water | Jason |
| Activity 2 | Coke Can Inquiry Lab – investigating the gas laws conceptually to allow students to try and safely open a shaken-up pop can | Danny |
| One STSE series of blog entries | Gases and STSE – allowing students to forge connections between this unit and the environment or the society around them, and explain these connections to their peers, and discuss via blog comments | Efi (all contributed, Efi created) |
| Lab experiment for classroom carousel | Production of Hydrogen gas from the reaction of Mg and HCl. Resulting calculations experimentally investigate Gas Stoichiometry and gas laws qualitatively | David |
| Summative Unit Test | Test evaluates student learning throughout the unit. Evaluates (through K/U, A, T/I and C) the student’s grasp of the big ideas of the unit and whether they understand the principles and concepts behind the guiding questions | Efi (David/Efi developing questions, Efi putting it all together) |